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**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

20050515.ORI

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

**10/534088**INTERNATIONAL APPLICATION NO.  
PCT/GB03/004875INTERNATIONAL FILING DATE  
07 November 2003

PRIORITY DATE CLAIMED

07 November 2002

## TITLE OF INVENTION

**MESOPOROUS GLASS AS NUCLEANT FOR MACROMOLECULE CRYSTALLISATION**

## APPLICANT(S) FOR DO/EO/US

**CHAYEN, Naomi and HENCH, Larry**

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1.  This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.
2.  This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.
3.  This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4.  The US has been elected (Article 31).
5.  A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a.  is attached hereto (required only if not communicated by the International Bureau).
  - b.  has been communicated by the International Bureau.
  - c.  is not required, as the application was filed in the United States Receiving Office (RO/US).
6.  An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))
  - a.  is attached hereto.
  - b.  has been previously submitted under 35 U.S.C. 154(d)(4).
7.  Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a.  are attached hereto (required only if not communicated by the International Bureau).
  - b.  have been communicated by the International Bureau.
  - c.  have not been made; however, the time limit for making such amendments has NOT expired.
  - d.  have not been made and will not be made.
8.  An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9.  An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). **(UNEXECUTED)**
10.  An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

## Items 11 to 20 below concern document(s) or information included:

11.  An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12.  An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13.  A preliminary amendment.
14.  An Application Data Sheet under 37 CFR 1.76.
15.  A substitute specification.
16.  A power of attorney and/or change of address letter.
17.  A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.
18.  A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19.  A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20.  Other items or information:

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

JC06 Rec'd PCT/PTO 06 MAY 2005

PTO-1390 (Rev. 02-2005)

Approved for use through 3/31/2007. OMB 0651-0021  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>10/534088</b>		INTERNATIONAL APPLICATION NO. <b>PCT/GB03/004875</b>		ATTORNEY'S DOCKET NUMBER <b>20050515.ORI</b>	
The following fees have been submitted				CALCULATIONS PTO USE ONLY	
21. <input checked="" type="checkbox"/> Basic national fee..... \$300				\$ 300.00	
22. <input checked="" type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)..... \$100 All other situations..... \$200				\$ 200.00	
23. <input checked="" type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared and provided to the Office..... \$400 All other situations..... \$500				\$ 400.00	
<b>TOTAL OF 21, 22 and 23 =</b>				\$ 900.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)		RATE	
<b>61 - 100 =</b>	<b>/50 =</b>			<b>x \$250</b>	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(h)).				\$	
CLAIMS		NUMBER FILED	NUMBER EXTRA	RATE	\$
Total claims		<b>27 - 20 =</b>	<b>7</b>	<b>x \$50</b>	<b>\$ 350.00</b>
Independent claims		<b>4 - 3 =</b>	<b>1</b>	<b>x \$200</b>	<b>\$ 200.00</b>
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				<b>+ \$360</b>	\$
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$ 1450.00</b>	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½.					
				<b>SUBTOTAL =</b>	<b>\$ 1450.00</b>
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	
				<b>TOTAL NATIONAL FEE =</b>	<b>\$ 1450.00</b>
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
				<b>TOTAL FEES ENCLOSED =</b>	<b>\$ 1450.00</b>
				Amount to be refunded:	\$
				Amount to be charged:	\$
<p>a. <input checked="" type="checkbox"/> A check in the amount of <b>\$ 1450.00</b> to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <b>08-1265</b> A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING: Information on this form may become public. Credit card information should not be included on this form.</b> Provide credit card information and authorization on PTO-2038.</p>					
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO: NIKOLAI & MERSEREAU, P.A. 900 Second Avenue South Suite 820 Minneapolis, MN 55402					
 SIGNATURE <b>C. G. Mersereau</b> NAME <b>26,205</b> REGISTRATION NUMBER					

10/534088  
JCCS Rec'd PCT/PPO 06 MAY 2005  
Express Mail No. EV658940873US  
PATENT APPLICATION  
Our Docket No. 20050515.ORI

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re App : Naomi Chayen et al : 06 May 2005  
For : MESOPOROUS GLASS AS NUCLEANT FOR  
MACROMOLECULE CRYSTALLISATION

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CERTIFICATE OF MAILING VIA EXPRESS MAIL

Mail Stop PCT  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I hereby certify that the attached Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning a Submission Under 35 U.S.C. 371, a copy of the published patent application, Preliminary Amendment, the International Search Report, a copy of the PCT Request, an unexecuted Declaration, Power of Attorney and Petition, Patent Application Data Entry Format, a Notice Informing the Applicant of the Communication of the International Application to the Designated Offices, a check in the amount of \$1450.00 to cover the filing fees and a return receipt postcard, all in connection with the above-identified patent application are being deposited with the United States Postal Service "Express Mail Post Office to Addressee", service under 37 CFR 1.10 on the date indicated above and are addressed to: Mail Stop PCT, Commissioner for Patents, Alexandria, VA 22313-1450, under Express Mail Post Office to Addressee Label No. EV658940873US.

Respectfully submitted,  
NIKOLAI & MERSEREAU, P.A.

*Barbara L Davis*

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On Behalf of C. G. Mersereau  
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